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(54) **Radio receiver automatic frequency control techniques**

(57) An automatic frequency control loop implemented by a digital signal processor (14) down converts an IF signal carrier to a residual carrier within an allowed range of frequencies by a down converter operation (16). A frequency detector (28) detects any error frequency in the residual carrier with reference to a reference frequency, such as 0 Hz, in order to shift the fre-

quency of the residual carrier by a shifter operation (20) which reduces the frequency error in the shifted signal. An envelope detector operation (26) retrieves information from the residual carrier, and the resulting signals are processed by a low pass filter operation (36) to reduce cross talk.

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EUROPEAN SEARCH REPORT

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EP 01 11 9783

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			H03J H04L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 17 December 2003	Examiner Peeters, M
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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